



March 20, 2020

Via Electronic Mail

DEQ.PUBLICNOTICES@LA.GOV

Re: Notice of Intent to Deny Hazardous Waste Operating Permit Renewal Application
Clean Harbors Colfax, LLC
LAD 981055791
AI#32096/PER20170002

On behalf of Central Louisiana Coalition for a Clean & Healthy Environment, and the Louisiana Environmental Action Network, Earthjustice submits these comments supporting the Louisiana Department of Environmental Quality's ("LDEQ") proposal to deny the hazardous waste operating permit renewal application submitted by Clean Harbors Colfax LLC ("Clean Harbors"), located at 3763 Louisiana Highway 471, Colfax, Louisiana.

We thank LDEQ for taking this action. It is both crucial for protecting human health and the environment in Colfax, and required by law. As LDEQ has determined, Clean Harbors has failed to establish that there are no alternatives to or mitigating measures for its outdated and dangerous practice of open burning and open detonating hazardous wastes. LDEQ correctly finds that the lack of such a showing precludes approval under Louisiana's public trust doctrine. In addition, Clean Harbors' permit renewal application contravenes federal and state hazardous waste law. As detailed below, LDEQ must reject Clean Harbors' permit renewal application.

I. BACKGROUND.

A. General Facility and Community Overview.

Clean Harbors is a commercial facility in Grant Parish, Louisiana that receives and burns hazardous wastes—primarily explosive hazardous wastes—from the United States Department of Defense and private defense facilities all across the United States. For years, this facility has operated with a hazardous waste storage, treatment, and disposal permit that allows it to burn and detonate ("OB/OD") hundreds of thousands of pounds of these wastes into the open air every year.¹ It is the only commercial facility in the country with such a permit. Clean Harbors open

¹ See Clean Harbors Colfax, RCRA Hazardous Waste Permit Renewal Application, Response to NOD #1, Volume 1 at 5-36 (April 2018), <https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=11056145&ob=yes> ("the net explosive weight that can be treated annually is limited to 561,700 pounds").

burned and detonated 284,679 pounds of hazardous wastes in 2016, 410,932 pounds in 2015, and 387,875 pounds in 2014.²

According to the most recent available census data, 2,151 people reside in the town of Colfax.³ The population is predominately (57%) African-American. Nearly half (46%) of the town's residents live in poverty and the median household income is \$25,321.⁴

B. Human Health and Environmental Risks Associated with OB/OD.

Clean Harbors open burns and detonates various hazardous wastes, including D003 (reactive waste); D001 (ignitable waste); D002 (corrosive waste); K044, K045, and K046 (explosives manufacturing); P-wastes, which are acute hazardous wastes from discarded commercial chemical products; and U-wastes, which are other hazardous wastes from discarded commercial chemical products. The types of wastes that are represented by these waste codes and are burned at Clean Harbors include airbag detonators, rocket boosters, fireworks, propellants, ammunition, smokeless powders, ignitors/detonators, and power devices.⁵

Clean Harbors' own sampling conducted in 2017 showed that there were a variety of contaminants in the soil, groundwater, and stream beds that are connected with its OB/OD operations. For instance, perchlorate levels in underground water supplies were detected "at more than 18 times Louisiana's trigger level for additional screening."⁶ RDX and HMX⁷ were also detected in the water; dioxins were detected in the soil; and lead was detected in silt from a

² Michael MacNaughton et al., *Alternatives for the Disposal of Energetic Waste at the Clean Harbor's Colfax LLC Open Burn Open Detonation Facility Colfax, Louisiana* at 10, Southwest Research Institute (April 18, 2017), <https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=10920520&ob=yes> (*hereinafter* "Clean Harbors' Alternatives Report").

³ U.S. Census Bureau, American Fact Finder, Community Facts, Colfax Town, Louisiana, https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml?src=bkmk (search Colfax, LA; population number is based on the 2017 ACS 5-Year Population Estimate).

⁴ *Id.*

⁵ Clean Harbors Colfax, RCRA Hazardous Waste Permit Renewal Application, Response to NOD #1, Volume I at 11 (pdf p. 12) (April 2018), <https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=11056145&ob=yes>; *id.* at Volume II, Appendix G at 4, <https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=11056165&ob=yes>.

⁶ Abrahm Lustgarten, "Kaboom Town," ProPublica (July 21, 2017), <https://www.propublica.org/article/military-pollution-toxic-burns-colfax-louisiana>.

⁷ RDX (also known as Royal Demolition Explosive) and HMX (also known as High Melting Explosive) are both explosive compounds that are used to conduct OB/OD operations and thus, are often found at military sites where OB/OD occurs or has previously occurred. EPA, Technical Fact Sheet – Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) at 1-2 (Nov. 2017), https://www.epa.gov/sites/production/files/2017-10/documents/ffrro_ecfactsheet_rdx_9-15-17_508.pdf; Agency for Toxic Substances and Disease Registry ("ATSDR"), HMX at 1 (Sept. 1997), <https://www.atsdr.cdc.gov/toxfaqs/tfacts98.pdf>.

stream bed that runs near the plant's fenceline and a nearby farm.⁸ Also, sampling from 2016 showed the following exceedances of regulatory and/or environmental standards: (1) for soil/sediment samples, concentrations of methyl chloride and lead exceeded the standards; (2) for surface water, concentrations of perchlorate exceeded the standards; and (3) for groundwater, concentrations of arsenic, chromium, lead, perchlorate, and RDX exceeded the standards.⁹

The hazardous pollutants involved in Clean Harbors' OB/OD present serious human health and environmental risks. For example, RDX is classified as a possible human carcinogen that can damage the nervous system and cause seizures, nausea, and vomiting.¹⁰ Factory employees in Europe and the US who were exposed to RDX "suffered convulsions, unconsciousness, vertigo, and vomiting."¹¹ The effects of long-term exposure to low levels of RDX are not known. There is limited information regarding the health effects of HMX but animal studies have shown that it is harmful to the liver and central nervous system.¹² Also, RDX and HMX both readily move from the soil into the groundwater and thus, have the potential to contaminate drinking water sources. HMX in dust particles can also be carried by the wind for long distances.¹³

In addition, heavy metals found in the 2017 sampling, including lead, arsenic, and chromium, can "impair function in the heart, liver, blood, intestines, kidneys, and skin as well as disrupt processes of the immune, endocrine, central nervous and peripheral nervous systems."¹⁴ Many heavy metals are also known to be "acutely toxic, germ cell mutagens, carcinogens or capable of causing adverse effects on sexual function and fertility."¹⁵ Heavy metals can also accumulate in the body leading to chronic health impacts. Long-term exposure to heavy metals can lead to "gradually progressing physical, muscular, and neurological degenerative processes that imitate

⁸ Abrahm Lustgarten, "Kaboom Town," ProPublica (July 21, 2017), <https://www.propublica.org/article/military-pollution-toxic-burns-colfax-louisiana>.

⁹ LDEQ, Consolidated Compliance Order & Notice of Potential Penalty, Enforcement Tracking No. MM-CN-16-01015, Agency Interest No. 32096 at 4-5 (Oct. 27, 2016), <https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=10386166&ob=yes>.

¹⁰ EPA, Technical Fact Sheet – Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX) at 1, 3 (Nov. 2017), https://www.epa.gov/sites/production/files/2017-10/documents/ffrro_ecfactsheet_rdx_9-15-17_508.pdf.

¹¹ John Pichtel, Distribution and Fate of Military Explosives and Propellants in Soil: A Review, Applied and Env'tl. Soil Science at 1 (2012), https://www.researchgate.net/publication/258385925_Distribution_and_Fate_of_Military_Explosives_and_Propellants_in_Soil_A_Review.

¹² Agency for Toxic Substances and Disease Registry ("ATSDR"), HMX at 1 (Sept. 1997), <https://www.atsdr.cdc.gov/toxfaqs/tfacts98.pdf>.

¹³ *Id.*

¹⁴ University of Connecticut, Division of Env'tl. Health & Safety, Toxic Metals – Safe Work Practices at 1 (n.d.), <http://media.ehs.uconn.edu/Chemical/ToxicMetals-SafeWorkPractices.pdf>.

¹⁵ *Id.*

diseases such as multiple sclerosis, Parkinson's disease, Alzheimer's disease, and muscular dystrophy.”¹⁶

Dioxins, which were detected in the soil at Clean Harbors, bioaccumulate in the ecosystem and in the human body because of their chemical stability and the fact that they are absorbed by fat tissue.¹⁷ Dioxins and furans are known as persistent organic pollutants (“POPs”) due to “their highly toxic potential” and their impact on numerous organs and body systems.¹⁸ Short-term exposure can result in skin lesions and liver damage; long-term exposure is “linked to impairment of the immune system, the developing nervous system, the endocrine system and reproductive functions.”¹⁹ In addition, animal studies have shown that exposure to dioxins/furans can result in cancer.²⁰

Perchlorate, the main ingredient in propellant, can impact the uptake of iodine in the thyroid gland, thus interfering with thyroid function and negatively impacting metabolism and fetal and infant brain development and growth.²¹ Short-term exposure to high doses can cause eye and skin irritation, coughing, nausea, vomiting, and diarrhea.²²

In addition to the specific contaminants that have been detected at Clean Harbors, there are other classes of chemicals that are typically associated with OB/OD operations that pose a risk to public health and the environment. For instance, TNT (2,4,6-trinitrotoluene) is a compound that is used extensively in the manufacture of munitions and thus, accounts for a large share of the explosives contamination at OB/OD sites. TNT is classified as a possible human carcinogen and can damage the liver and blood systems.²³ Long-term exposure can also lead to skin irritation and the development of cataracts.²⁴ In animal studies, TNT was shown to cause tumors, cancer, and for male animals there were “serious reproductive system effects.”²⁵

¹⁶ Monisha Jaishankar et al., Toxicity, mechanism and health effects of some heavy metals, *Interdiscip. Toxicol.* 7(2):60-72 (June 2014), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4427717/>.

¹⁷ World Health Organization, Dioxins and their effects on human health, (Oct. 4, 2016), <https://www.who.int/news-room/fact-sheets/detail/dioxins-and-their-effects-on-human-health>.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ GAO, Department of Defense Activities Related to Trichloroethylene, Perchlorate, and Other Emerging Contaminants at 7 (July 2007), <https://www.gao.gov/new.items/d071042t.pdf>.

²² EPA, Technical Fact Sheet – Perchlorate at 1, 3 (Jan. 2014), https://www.epa.gov/sites/production/files/2014-03/documents/ffrrofactsheet_contaminant_perchlorate_january2014_final.pdf.

²³ EPA, Technical Fact Sheet – 2,4,6-Trinitrotoluene (TNT) at 3 (Nov. 2017), https://www.epa.gov/sites/production/files/2017-10/documents/ffrrofactsheet_contaminants_tnt_9-15-17_508.pdf.

²⁴ *Id.*

²⁵ *Id.*

Volatile organic compounds (“VOCs”) are also emitted during OB/OD operations and can cause a range of health issues depending on the specific compound and the level of exposure but in general their health effects include “[e]ye, nose, and throat irritation[;] [h]eadaches, loss of coordination and nausea[;] [d]amage to liver, kidney and central nervous system[; and] [s]ome organics can cause cancer in animals, some are suspected or known to cause cancer in humans.”²⁶ For instance, benzene is a VOC that is a known carcinogen and can cause leukemia.²⁷ Benzene exposure can also negatively impact the immune system – leading to an increased chance of infection – and harm bone marrow – leading to a decrease in red blood cells that results in anemia.²⁸ Lastly, polycyclic aromatic hydrocarbons (“PAHs”) are formed whenever substances are burned. Exposure to PAHs can cause cancer and animal studies have shown increased rates of skin, lung, bladder, liver, and stomach cancers.²⁹ PAHs tend to stick to solid particles like soil but some do move through soil to contaminate groundwater as well.³⁰

C. Clean Harbors’ History of Noncompliance.

Clean Harbors has repeatedly violated the terms of its hazardous waste, air, and water permits, presenting serious risks to human health and the environment. In recent years, LDEQ has issued numerous Compliance Orders and Notices of Potential Penalty to Clean Harbors for various infractions. For example:

- In December 2019, LDEQ issued a Compliance Order after inspectors noted nine separate instances when the facility’s permitted burn time of five minutes was exceeded.³¹ Clean Harbors also violated its permit by operating eighteen burn pans simultaneously when their permitted limit is ten.³²
- On September 10, 2019, LDEQ issued a Notice of Potential Penalty that lists 56 dates on which the inspector found that the burn times listed in the treatment logs exceeded the

²⁶ EPA, Volatile Organic Compounds’ Impact on Indoor Air Quality (last updated Nov. 6, 2017), <https://www.epa.gov/indoor-air-quality-iaq/volatile-organic-compounds-impact-indoor-air-quality>.

²⁷ ATSDR, Benzene – ToxFAQs at 2 (Aug. 2007), <https://www.atsdr.cdc.gov/toxfaqs/tfacts3.pdf>.

²⁸ *Id.* at 1.

²⁹ ATSDR, What Health Effects Are Associated With PAH Exposure? (last reviewed on Dec. 10, 2013), <https://www.atsdr.cdc.gov/csem/csem.asp?csem=13&po=11>.

³⁰ ATSDR, Polycyclic Aromatic Hydrocarbons (PAHs) – ToxFAQs (Sept. 1996), <https://www.atsdr.cdc.gov/toxfaqs/tfacts69.pdf>.

³¹ LDEQ, Consolidated Compliance Order & Notice of Potential Penalty, Enforcement Tracking No. MM-CN-19-01210, Agency Interest No. 32096 at 2-3 (Dec. 27, 2019), <https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=11995930&ob=yes>.

³² *Id.* at 3.

five-minute burn/detonation permit limit.³³ In numerous instances, the recorded burn time was ten times higher than the limit (i.e., fifty minutes).³⁴

- On May 10, 2019, LDEQ issued a Notice of Potential Penalty that lists 174 dates on which the inspector found that the burn times listed in the treatment logs exceeded the five-minute burn/detonation permit limit.³⁵ In some instances, the recorded burn time lasted as long as 120-180 minutes.³⁶
- In November 2018, the facility was issued a Compliance Order for, among other violations, failing to remedy the deterioration or malfunction of equipment or structures, as the inspectors found cracks and gaps in the concrete and deterioration/damage to the treatment pads in the Thermal Treatment Area (where OB is conducted).³⁷
- In March 2018, Clean Harbors received another Compliance Order for releasing 450,000 to 475,000 gallons of untreated wastewater from the burn pad into the soil and waters of the state.³⁸
- On April 11, 2018, LDEQ issued a Notice of Potential Penalty in which it outlined the following violations³⁹:
 - An inspection on October 3, 2017, found 151 instances where the burn times exceeded the five-minute burn/detonation permit limit.
 - An inspection on October 23, 2017, found 409 exceedances of the burn limit.
 - An inspection on November 13, 2017, found 46 exceedances of the burn limit.
 - An inspection on November 27, 2017, found 355 exceedances of the burn limit.
 - An inspection on December 11, 2017, found 145 exceedances of the burn limit.
 - An inspection on December 27, 2017, found 222 exceedances of the burn limit.

³³ LDEQ, Notice of Potential Penalty, Enforcement Tracking No. AE-PP-19-00675, Agency Interest No. 32096 (Sept. 10, 2019), <https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=11860579&ob=yes>.

³⁴ *Id.*

³⁵ LDEQ, Notice of Potential Penalty, Enforcement Tracking No. AE-PP-19-00156, Agency Interest No. 32096 (May 10, 2019), <https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=11663855&ob=yes>.

³⁶ *Id.*

³⁷ LDEQ, Consolidated Compliance Order & Notice of Potential Penalty, Enforcement Tracking No. MM-CN-18-00649, Agency Interest No. 32096 at 2 (Nov. 13, 2018), <https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=11406742&ob=yes>.

³⁸ LDEQ, Consolidated Compliance Order & Notice of Potential Penalty, Enforcement Tracking No. MM-CN-18-00108, Agency Interest No. 32096 at 3-4 (March 23, 2018), <https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=11038175&ob=yes>.

³⁹ LDEQ, Notice of Potential Penalty, Enforcement Tracking No. AE-PP-18-00143, Agency Interest No. 32096 (April 11, 2018), <https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=11060384&ob=yes>.

- An inspection on January 22, 2018, found 257 exceedances of the burn limit.
- On July 18, 2017, LDEQ issued a Notice of Potential Penalty in which it outlined the following violations⁴⁰:
 - An inspection on February 9, 2017, found 31 instances where the burn times exceeded the five-minute burn/detonation permit limit.
 - An inspection on March 13 and 15, 2017, found 76 exceedances of the burn limit.
 - An inspection on March 20, 2017, found 5 exceedances of the burn limit.
 - An inspection on April 21, 2017, found 21 exceedances of the burn limit.
- In February 2017, LDEQ issued a Compliance Order for eight violations where the burn time exceeded the five-minute limit.⁴¹
- In October 2016, Clean Harbors was issued a Compliance Order covering a range of violations, including: operating a surface impoundment area that received hazardous wastes from the Thermal Treatment Area without a permit; failure to provide records verifying that disposed ash originating from the Thermal Treatment Area met applicable land disposal treatment standards; failure to address deterioration of components of the Thermal Treatment Area for over a year; open burning of wastes that they were not permitted to burn (e.g., 55-gallon plastic and metal drums, cardboard boxes, sweeper brushes, and empty munitions boxes); failure to prevent “residue and debris generated during the thermal treatment process from contaminating the surrounding area and surface waters”; and exceeding the five minute burn duration limit, among many other violations.⁴² The inspectors further noted that Clean Harbors had been discharging pollutants that they were not authorized to discharge, including antimony and copper, into the Retention Pond in violation of their LPDES Permit.⁴³

In November 2018, LDEQ issued Clean Harbors Colfax a penalty of almost \$900,000 for their violations from October 2016 forward.⁴⁴

According to the United States Environmental Protection Agency (“EPA”), Clean Harbors has been out of compliance with RCRA for twelve out of the last twelve quarters and is considered a

⁴⁰ LDEQ, Notice of Potential Penalty, Enforcement Tracking No. AE-PP-17-00520, Agency Interest No. 32096 (July 18, 2017),

<https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=10714907&ob=yes>.

⁴¹ LDEQ, Consolidated Compliance Order & Notice of Potential Penalty, Enforcement Tracking No. AE-CN-17-00062, Agency Interest No. 32096 at 2-3 (Feb. 7, 2017),

<https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=10492908&ob=yes>.

⁴² LDEQ, Consolidated Compliance Order & Notice of Potential Penalty, Enforcement Tracking No. MM-CN-16-01015, Agency Interest No. 32096 at 5-10 (Oct. 27, 2016),

<https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=10386166&ob=yes>.

⁴³ *Id.*

⁴⁴ LDEQ, Penalty Assessment, Enforcement Tracking No. MM-P-18-00537, Agency Interest No. 32096 (Nov. 19, 2018),

<https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=11411835&ob=yes>.

“significant noncomplier” in this category.⁴⁵ The facility has also been out of compliance with the Clean Water Act for ten out of the last twelve months.⁴⁶ Clean Harbors has also been subject to at least one informal enforcement action and eleven formal enforcement actions in the last five years.⁴⁷

D. Alternatives to OB/OD.

Today, there are numerous alternatives to OB/OD. In 2018, the National Academies of Sciences, Engineering, and Medicine (“NAS”) published a Congressionally-mandated study on this very topic.⁴⁸ Among other things, the NAS concluded that “with few exceptions, it is technically possible to apply existing alternative technologies to demilitarize the majority of [munitions hazardous wastes] in the stockpile inventory.”⁴⁹ The NAS Report discusses a wide variety of those alternative technologies and finds that all of them would have “lower emissions and less of an environmental and public health impact, would be monitorable, and would likely be more acceptable to the public.”⁵⁰

EPA made similar findings in a December 2019 report.⁵¹ The EPA Report assesses various alternative technologies that have been used successfully in lieu of OB/OD, and finds, among other things, that “there is a wide range of available alternative treatment technologies that can be, and have been used successfully, in place of OB/OD.”⁵²

II. LDEQ MUST REJECT CLEAN HARBORS’ REQUEST TO WITHDRAW THE AGENCY’S NOTICE OF INTENT TO DENY THE PERMIT APPLICATION.

In a letter dated February 14, 2020, Clean Harbors asks LDEQ to withdraw its notice of intent to deny the hazardous waste permit because Clean Harbors “intends to” revise its application to add “a Contained Burn System for the treatment of certain existing hazardous waste streams that are anticipated to be compatible with the new unit.”⁵³ Clean Harbors represents that it “anticipate[s]”

⁴⁵ EPA, ECHO Detailed Facility Report, Clean Harbors Colfax (last visited Nov. 26, 2019), <https://echo.epa.gov/detailed-facility-report?fid=110000911210#pollutant>.

⁴⁶ *Id.*

⁴⁷ *Id.*

⁴⁸ National Academies of Sciences, Engineering, and Medicine (“NAS”), *Alternatives for the Demilitarization of Conventional Munitions* at 3-4 (2018), <https://doi.org/10.17226/25140> (*hereinafter* “NAS Report”).

⁴⁹ *Id.*

⁵⁰ *Id.* (Finding 8-1).

⁵¹ EPA, *Alternative Treatment Technologies to Open Burning and Open Detonation of Energetic Hazardous Wastes* (Dec. 2019), https://www.epa.gov/sites/production/files/2019-12/documents/final_obod_altechreport_for_publication_dec2019_508_v2.pdf (*hereinafter* “EPA Report”).

⁵² *Id.* at 12.

⁵³ Letter from Clean Harbors Colfax to LDEQ (Feb. 14, 2020), <https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=12078110&ob=yes>.

submitting a revised application by August 31, 2020, and asks for its current OB/OD permit to remain in effect while that application is “prepared, submitted, and considered.”⁵⁴

The possibility that Clean Harbors may submit a revised application many months from now is no basis for allowing the facility to continue OB/OD under the existing permit until that time. As discussed below, Clean Harbors’ OB/OD practices are unlawful now and LDEQ cannot allow the current permit to remain in effect any longer. To accept Clean Harbors’ request would also contravene the permitting process. Should Clean Harbors in fact pursue the addition of a Contained Burn System or any other OB/OD alternative in the future, it will be free to submit a new hazardous waste permit application for LDEQ’s and the public’s consideration in accordance with applicable permitting requirements.

III. LDEQ MUST DENY THE PERMIT APPLICATION UNDER FEDERAL AND STATE HAZARDOUS WASTE LAW.

LDEQ’s proposed denial focuses on Clean Harbors’ failure to satisfy requirements established in *Save Ourselves*. Another basis for denying the permit is the fact that it violates the Resource Conservation and Recovery Act (“RCRA”) and associated federal and state hazardous waste regulations.

RCRA requires that the treatment and disposal of all hazardous wastes be regulated “cradle-to-grave” in a manner that is protective of human health and the environment. *See generally* 42 U.S.C. §§ 6922-6924 (requiring standards “as may be necessary to protect human health and the environment” for hazardous waste generators, transporters, and treatment, storage, and disposal facilities); *See generally* 40 C.F.R. §§ 262-265. Pursuant to RCRA and the Clean Air Act, EPA has established national Maximum Achievable Control Technology emissions standards applicable to hazardous waste combustion. 40 C.F.R. Part 63, Subpart EEE. *See also* 70 Fed. Reg. 59,402 (Oct. 12, 2005).

Open burning of hazardous wastes is prohibited. EPA has recognized just one narrow exception to this rule. Specifically, 40 CFR § 265.382 (Open burning; waste explosives) states:

Open burning of hazardous waste is *prohibited* except for the open burning and detonation of waste explosives. Waste explosives include waste which has the potential to detonate and bulk military propellants *which cannot safely be disposed of through other modes of treatment*...Owners or operators choosing to open burn or detonate waste explosives must do so in accordance with the following table *and in a manner that does not threaten human health or the environment*.

⁵⁴ *Id.*

Pounds of waste explosives or propellants	Minimum distance from open burning or detonation to the property of others
0 to 100	204 meters (670 feet)
101 to 1,000	380 meters (1,250 feet)
1,001 to 10,000	530 meters (1,730 feet)
10,001 to 30,000	690 meters (2,260 feet)

(emphases added). In promulgating this exception 40 years ago, EPA was clear that OB/OD of hazardous wastes would only be permissible in limited circumstances where there are “no other modes of treatment” to safely dispose of the wastes. 40 CFR § 265.382. EPA recognized that the “potential human health hazards associated with the practice [of open burning of hazardous wastes] dictate that open burning be ended now.” EPA, *Standards Applicable to Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities*, 45 Fed. Reg. 33,154, 33,217/2 (May 19, 1980). The agency specifically exempted waste explosives only because it believed that OB/OD were at that time “currently the only alternatives for disposal of most munitions.” *Id.* Thus, EPA allowed the “open burning and open detonation of waste explosives during the interim status period, provided that it is conducted at minimum distances from the property of others,” *id.* as codified in 40 C.F.R. § 265.382. Louisiana has incorporated this regulation into the state hazardous waste program at 33 LA Admin. Code. Tit. 33, Pt V, 4533, and is barred from allowing any OB/OD practices that are broader or less stringent. 42 U.S.C. §§ 6926(b), 6929.

EPA’s 2019 Alternatives Report establishes that the technology for treating and disposing of munitions hazardous wastes has evolved since EPA promulgated the OB/OD exception, and that there are now numerous safe alternatives to OB/OD. According to EPA, “a range of alternative treatment technologies that have demonstrated a capability to satisfy safety mandates are now available. These technologies are contained or closed and (typically) employ pollution controls to treat the byproducts before release.”⁵⁵ The NAS Report likewise presents a range of alternatives to OB/OD for the treatment and disposal of waste munitions.

Because the materials Clean Harbors open burns and detonates are indisputably hazardous wastes, and because Clean Harbors has failed to demonstrate that those hazardous wastes “cannot safely be disposed of through other modes of treatment,” such as the alternative technologies assessed by EPA and the NAS, the permit application must be denied. OB/OD in these circumstances is strictly prohibited. 40 C.F.R. § 265.382; 33 LA Admin. Code. Tit. 33, Pt V, 4533.

Clean Harbors gives short shrift to recognized alternatives to OB/OD, offering nothing more than unsupported, cursory, and irrelevant assertions about various options. For example, Clean Harbors broadly claims that “[m]any of the technologies reviewed in this and previous

⁵⁵ EPA Report at 6.

assessments are still in early development or have been used on a very narrow range of energetics, and therefore, were not deemed mature or robust enough for a commercial operation.”⁵⁶ This assertion is baseless and directly refuted by the NAS Report, which states that “[m]ost of the technologies that could replace OB and OD are mature and many have already been permitted,” including those mentioned in Clean Harbors’ Alternatives Report.⁵⁷

Significantly, Clean Harbors does not deny that various alternatives are available for use.⁵⁸ To the contrary, Clean Harbors acknowledges the existence of several alternatives and admits that it is currently planning to pursue one of them.⁵⁹ Instead of establishing that the hazardous wastes “cannot be safely disposed of” with any of these alternatives, as required, Clean Harbors claims that the alternatives are not “as effective, efficient, and economically feasible as” OB/OD.⁶⁰ These factors and other criteria Clean Harbors cites are not relevant in determining whether OB/OD is permissible under the hazardous waste requirements (40 C.F.R. § 265.382; 33 LA Admin. Code. Tit. 33, Pt V, 4533). These requirements only consider whether the hazardous wastes can be “safely disposed of through other modes of treatment”—a determination that necessarily addresses RCRA’s core aim of ensuring protection of human health and the environment. Unless Clean Harbors can establish that the hazardous wastes it receives cannot be “safely disposed of through other modes of treatment” in a manner that is protective of human health and the environment—a showing it has not made—OB/OD is prohibited. Other considerations, including cost and difficulty, cannot be considered.

Regardless, in applying its criteria to certain alternatives, Clean Harbors’ presents only general statements about things like the robustness and throughput of alternatives, and industrial experience and public acceptance. It fails to include any analysis establishing that there is no safe alternative to OB/OD at the Colfax facility.

Clean Harbors attempts to justify its use of OB/OD by asserting that it “is a safe method of treatment for [its hazardous wastes]; therefore, there are no alternatives for deactivating reactive wastes which would offer more protection to the environment than the technology [currently employed] by the facility.”⁶¹ This outrageous claim that its OB/OD, which is the *uncontrolled burning of hazardous wastes* into the open air, is a safe—much less the safest—option for treating the hazardous wastes is refuted by the NAS Report, which states that each of the alternative technologies assessed “would have lower emissions and less of an environmental

⁵⁶ Clean Harbors’ Alternatives Report at 44.

⁵⁷ NAS Report at 90.

⁵⁸ Clean Harbors’ Alternatives Report at 53.

⁵⁹ Letter from Clean Harbors Colfax to LDEQ (Feb. 14, 2020), <https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=12078110&ob=yes>.

⁶⁰ Clean Harbors Colfax, RCRA Hazardous Waste Permit Renewal Application, Response to NOD #1, Volume II, Appendix T at 11 (April 2018), <https://edms.deq.louisiana.gov/app/doc/view.aspx?doc=11056165&ob=yes> (*hereinafter* “IT Responses”).

⁶¹ *Id.*

impact and public health impact” compared to OB/OD.⁶² It is also without basis. For example, Clean Harbors has not assessed the full extent of its uncontrolled air emissions, and the associated risks and impacts on human health and the environment. Indeed, its Alternatives Report states that “[n]o air monitoring is currently conducted” at the site.⁶³ Rather than presenting its own comprehensive data, Clean Harbors cites limited sampling conducted over a single brief period four years ago,⁶⁴ a study of OB/OD in Europe that appears to compare estimated emissions from some sort of OB/OD against estimated emissions from some sort of incineration, and emissions information from other OB/OD sites. It does not even explain how this information is representative of its current actual emissions. Moreover, Clean Harbors does not acknowledge, let alone address, the human health and environmental risks inherent in OB/OD of hazardous wastes (*supra*) or its own record of non-compliance, all of which demonstrate that Clean Harbors’ OB/OD practices are not safe and protective of human health and the environment. Nor does Clean Harbors assess the cumulative health and environmental impacts associated with its OB/OD operations, or the health-related exposure risks its own workers face while engaging in OB/OD.

Even if Clean Harbors’ OB/OD were somehow deemed “safe,” it does not follow that the alternatives are not safe or that they would not be more protective of human health and the environment, as Clean Harbors claims. This cannot be true simply because Clean Harbors says so. Clean Harbors must make this showing with supporting evidence, including an analysis of the NAS and EPA reports (which Clean Harbors does not even mention) and the possibility of treating and disposing of the hazardous wastes it receives at a different site without using OB/OD. As LDEQ states and as noted above, Clean Harbors has identified alternatives and some of their features, but has failed to assess the viability of implementing any of them at the Colfax facility for all, or a portion of, the hazardous waste streams it currently receives for OB/OD.⁶⁵

⁶² NAS Report at Finding 8-1. *See also* NAS Report at Table 8.2 n.c (“All alternative technologies are enclosed and have lower emissions than OB, so perform better in terms of environmental and public health impacts.”); EPA Report at 6 (“a range of alternative treatment technologies that have demonstrated a capability to satisfy safety mandates are now available.”).

⁶³ Clean Harbors’ Alternatives Report at 4.

⁶⁴ Clean Harbors’ Alternatives Report at 4, 8. Even its limited sampling detected pollutants, including toxic metals and dioxins/furans. *Id.* at 8. Clean Harbors asserts that these toxics were in the background and community at levels higher than the fence line because of “low levels and the normal activities of living in the residential areas,” but presents no supporting data or information about what types of activities in Colfax could be producing the toxics associated with its OB/OD operations. Clean Harbors also claims the concentrations were below air standards, but does not show that all of the pollutants emitted are subject to standards and that those standards are protective of human health and the environment.

⁶⁵ Clean Harbors’ “Conclusions” section ends in mid-sentence and is incomplete.

IV. CLEAN HARBORS' HISTORY OF NONCOMPLIANCE SUPPORTS THE DENIAL.

Pursuant to LSA-R.S. 30:2014(A), prior to granting or denying a permit, LDEQ "shall consider the history of violations and compliance for [the applicant] facility." *In re. Matter of CECOS Livingston Facility*, 574 So.2d 385 (1990) ("One of the requirements in the permitting process, before the secretary can grant a permit, is the review of the compliance history."). As noted above, Clean Harbors has an indisputable and extensive history of violating its hazardous waste permit, as well as its air and water permits. This history demonstrates Clean Harbors' disregard for the law and failure to act in a manner necessary to protect human health and the environment, and is yet another basis for denying the permit.

V. LDEQ MUST DENY THE PERMIT UNDER *SAVE OURSELVES*.

To the extent LDEQ seeks further rationale for denying Clean Harbors' permit, the agency is correct that the record here fails to support permit renewal under the analysis required by the *Save Ourselves v. Envtl. Control Comm'n*, 452 So.2d at 1152, 1157 (La. 1984).

In *Save Ourselves*, the Louisiana Supreme Court interpreted Article IX of the Louisiana state Constitution⁶⁶ to mean that LDEQ must "determine that adverse environmental impacts have been minimized or avoided as much as possible consistently with the public welfare...before granting approval of proposed action affecting the environment." This requires LDEQ to address the following:

- (1) Whether the potential and real adverse environmental effects of the proposed facility have been avoided to the maximum extent possible;
- (2) Whether a cost benefit analysis of the environmental impact costs balanced against the social and economic benefits of the proposed facility demonstrate that the latter outweighs the former;
- (3) Whether there are alternative projects which would offer more protection to the environment than the proposed facility without unduly curtailing non-environmental benefits;
- (4) Whether there are alternative sites which would offer more protection to the environment than the proposed facility site without unduly curtailing non-environmental benefits;
- (5) Whether there are mitigating measures which would offer more protection to the environment than the facility as proposed without unduly curtailing non-environmental benefits.

⁶⁶ Article IX provides that "[t]he natural resources of the state, including air and water, and the healthful, scenic, historic, and esthetic quality of the environment shall be protected, conserved, and replenished insofar as possible and consistent with the health, safety, and welfare of the people. The legislature shall enact laws to implement this policy."

See Matter of Rubicon, Inc., 95-0108 (La. App. 1 Cir. 2/14/96), 670 So. 2d 475, 482.

It bears emphasis that the hazardous waste requirements discussed above do not require such a balancing test. By the plain terms of those requirements, unless the wastes “cannot safely be disposed of through other modes of treatment” —a showing Clean Harbors has not made—the permit application must be denied. In these circumstances, the *Save Ourselves* analysis serves to provide *more* protection beyond what the regulation requires.

Even if the aforementioned hazardous waste law did not exist, the analysis under *Save Ourselves* would require LDEQ to deny the permit. As LDEQ states, “the record fails to support a finding that there are no alternative projects or mitigating measures which would offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits.” LDEQ, Notice of Intent to Deny. Clean Harbors has utterly failed to demonstrate a lack of safer alternatives to OB/OD (*i.e.*, alternatives that would improve environmental protection).

As noted above, Clean Harbors’ assertion that open burning “is a safe method or treatment for” its hazardous waste and that “therefore there are no alternatives...which would offer more protection” is unsupported and irrational.

In addition, Clean Harbors fails to show that “[t]he potential and real adverse environmental effects of the proposed facility have been avoided to the maximum extent possible.” Clean Harbors recognizes just four generalized potential risks associated with its OB/OD (physical injury associated with an unplanned or uncontrolled fire or explosion; direct inhalation of combustion by-products; deposition of particulate matter; and stormwater runoff if uncontrolled).⁶⁷ It asserts that these risks have been avoided to the maximum extent possible by employing three “safeguards,” specifically, scrutiny of the waste before shipment or treatment, secondary containment, and trained and supervised employees.⁶⁸ Again, Clean Harbors offers no explanation as to how these extremely limited measures constitute the “maximum extent possible,” particularly given the existence of alternative technologies that do not involve the uncontrolled burning of hazardous wastes into the open air. In terms of “real adverse environmental effects,” Clean Harbors concludes there have been “limited impacts,” a statement for which it presents no analysis or actual data, just vague, unexplained references to limited monitoring.⁶⁹

Without complete and supported analysis, LDEQ has no basis upon which to grant Clean Harbors’ permit application. “LDEQ is duty-bound to demonstrate that it has properly exercised the discretion vested in it by making basic findings supported by evidence and ultimate findings that flow rationally from the basic findings; and it must articulate a rational connection between the facts found and the order...” *In re Oil & Gas Exploration Development, & Production Facilities*, 70 So. 3d 101 (La. App. 1 Cir. 2011). The agency’s “actions must be diligent, fair, and

⁶⁷ IT Responses at 1.

⁶⁸ IT Responses at 5.

⁶⁹ IT Responses at 4-5.

faithful to protecting the public interest in the state's resources.” *In re Am. Waste and Pollution Control Co.*, 633 So. 2d 188, 194 (La. App. 1 Cir. 1993).

We appreciate the opportunity to comment on this important proposal by LDEQ. Please contact Khushi Desai at 202-745-5224 or kdesai@earthjustice.org with any questions concerning these comments.

Respectfully submitted,

Khushi Desai, Attorney
Lisa Fuhrmann, Sr. Research & Policy Associate